## ABSTRACT

This invention relates to the use of polysaccharide such as dextran to improve mucus clearance. In the present invention, dextran has been shown to reduce viscoelasticity and increase mucus clearability of sputum of cystic fibrosis patients. Dextran also reduced viscoelasticity of healthy dog mucus. The present invention therefore may be used to improve mucus clearance in cystic fibrosis patients and treat other conditions associated with defect in airway mucus clearance including chronic bronchitis, bronchiectasis and bronchial asthma.